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(57) Abstract:

PROBLEM TO BE SOLVED: To form a smooth halftone image having high gradation by providing an ink inlet communicating an ink supply chamber and an ink cavity and differentiating the relative position of ink inlet to a nozzle thereby driving a plurality of head sections appropriately depending on an image signal.

SOLUTION: Relative position of an inklet 32 to a nozzle 30 is different at a large diameter head section 11 from that at a small diameter head section 12 and the distance  $L_1$  from the center of the inklet 32 at the large diameter head section 11 to the rear end 28a of an ink cavity is set shorter than the distance  $L_2$  from the center of the inklet 32 at the small diameter head section 12 to the rear end 28b of the ink cavity. Distance between the distances  $L_1$  and  $L_2$  appears as the difference in the size of ink droplet and the large diameter head section 11 jets an ink droplet of larger diameter than that from the small diameter head section 12. Furthermore, the gradation is widened when the nozzle 30 at the large diameter head section 11 is set larger than that at the small diameter head section 12.

